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## MEMORANDUM

TO: Infection Control Professionals, Infectious Disease Physicians, laboratories, Local Health Departments, Regional Offices of Illinois Department of Public Health

FROM: Communicable Disease Control Section  
Illinois Department of Public Health

DATE: May 13, 2014

SUBJECT: MERS-CoV: Evaluation and Testing of Patients

### Reporting

Please remember that MERS-CoV infection is reportable immediately (within three hours) if there is suspicion that this disease may be present in a patient. Report any suspect cases to the local public health authority under Section 690.295 of the Communicable Disease Control and Immunizations rules and regulations, "Any unusual case of a disease or condition caused by an infectious agent not listed in this part that is of urgent public health significance".

### Preparation

Please prepare ahead of time to identify suspect MERS-CoV patients during your triage process and utilize proper infection control precautions. See the attached health care provider and hospital checklists and make sure you are prepared. Preparation will prevent unnecessary exposures to health care workers and others in a facility. Please review MERS-CoV information available on the CDC website at:

<http://www.cdc.gov/coronavirus/mers>.

### Infection Control

Highlights of the infection control information are that standard, contact and airborne precautions are recommended for management of hospitalized patients with suspect or confirmed MERS-CoV infection. For personal protective equipment use gloves, gowns, eye protection and respiratory protection upon entry into a suspect or confirmed MERS-CoV patient's room. Physicians or local health jurisdictions who are referring patients who need to be evaluated for MERS-CoV at a hospital should call ahead to the hospital to alert them to the arrival of that patient at the facility. Patients suspected of having MERS-CoV should be identified as quickly as possible and managed with proper infection control procedures.

## **Testing**

See attached information regarding CDC's recommended criteria for testing and current CDC case definitions.

Testing for MERS-CoV infection **MUST** be approved prior to submission of specimens to the IDPH Chicago laboratory. Collection of specimens by a health care provider or hospital does not necessarily mean that testing will be performed.

Please review on the CDC website what constitutes a patient under investigation (PUI). These guidelines will be used for determining whether testing for MERS-CoV will be approved. The local health department should collect information from health care providers using the CDC PUI short form (<http://www.cdc.gov/coronavirus/mers/data-collection.html>), and make a determination about whether the person meets the criteria for testing, consulting IDPH as needed. It is critical that health care providers have accurate information about CXR findings (preferably including radiologist interpretation), as well as information about exposure history. In some instances, decisions about the necessity for testing will be made after testing for common respiratory pathogens, and infectious disease consultation has taken place.

Note that CDC currently recommends testing for individuals with lower respiratory tract disease, who also meet other criteria (e.g. onset of illness within 14 days after traveling from countries in the Arabian Peninsula or neighboring countries). Testing of individuals without lower respiratory tract disease will generally not be performed, unless significant epidemiologic risk factors for MERS-CoV infection are identified.

If testing is needed, the LHD will alert IDPH immediately, relay the specific information and fax the PUI form. Anyone to be tested for MERS-CoV must have a completed MERS-CoV PUI form.

Persons who have traveled to the Arabian Peninsula and have very recently returned to the United States and have fever and mild respiratory symptoms should be tested for other common respiratory pathogens and monitored for progression of disease to meet the PUI criteria for testing.

Information is available on the CDC website about guidelines for collecting, handling and transporting of specimens for MERS-CoV testing. At this time the IDPH laboratory does not perform stool testing for MERS-CoV.

## **After-hours calls**

After hour calls or consultations will be handled in the usual manner. Health care providers will be asked to first call their local health department. If they cannot reach the local health department they can call the IDPH Emergency Operations Center at 1-800-782-7860 and ask for the IDPH duty officer.

Thank you for your assistance. We will provide further updates as needed.

## Middle Eastern Respiratory Syndrome (MERS)

Health care providers should be alert to patients who develop severe acute lower respiratory illness (e.g., requiring hospitalization) within 14 days after traveling from countries in the Arabian Peninsula or neighboring countries<sup>1</sup>, excluding those who transited at airports without entering the countries.

- Consider other more common causes of respiratory illness, such as influenza.
- Evaluate patients using [CDC's case definitions and guidance](#).
- Immediately report patients with unexplained respiratory illness and who meet CDC's criteria for "patient under investigation (PUI)" to your local health department.
- A PUI is a person with the following characteristics:
  - Fever ( $\geq 38^{\circ}$ ,  $100.4^{\circ}\text{F}$ ) and pneumonia or acute respiratory distress syndrome (based on clinical or radiologic evidence)
  - AND EITHER
  - History of travel from countries in or near the Arabian Peninsula\* within 14 days before symptom onset
  - OR
  - Close contact\*\* with a symptomatic traveler who developed fever and acute respiratory illness (not necessarily pneumonia) within 14 days after traveling from countries in or near the Arabian Peninsula\*
  - OR
  - Is a member of a cluster of patients with severe acute respiratory illness (such as fever and pneumonia requiring hospitalization) of unknown etiology in which MERS-CoV is being evaluated, in consultation with state and local health departments
- Collect specimens for MERS-CoV testing from all PUIs.
- Contact your state or local health department if you have any questions.
- See additional recommendations and guidance on CDC's [MERS website](#).
- Health departments with questions should contact CDC's Emergency Operations Center (770-488-7100).

### Patient Under Investigation (PUI) for MERS

A patient under investigation (PUI) is a person with the following characteristics:

- fever ( $\geq 38^{\circ}\text{C}$ ,  $100.4^{\circ}\text{F}$ ) and pneumonia or acute respiratory distress syndrome (based on clinical or radiological evidence);  
AND EITHER

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<sup>1</sup> Countries considered in or near the Arabian Peninsula: Bahrain, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestinian territories, Qatar, Saudi Arabia, Syria, the United Arab Emirates (UAE), and Yemen.

- history of travel from countries in or near the Arabian Peninsula<sup>1</sup> within 14 days before symptom onset;

OR

- close contact<sup>2</sup> with a symptomatic traveler who developed fever and acute respiratory illness (not necessarily pneumonia) within 14 days after traveling from countries in or near the Arabian Peninsula;<sup>1</sup>

OR

- is a member of a cluster of patients with severe acute respiratory illness (e.g. fever and pneumonia requiring hospitalization) of unknown etiology in which MERS-CoV is being evaluated, in consultation with state and local health departments.

#### **MERS--Confirmed Case**

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A confirmed case is a person with laboratory confirmation of MERS-CoV infection.

#### **MERS--Probable Case**

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A probable case is a PUI with absent or inconclusive laboratory results for MERS-CoV infection who is a close contact of a laboratory-confirmed MERS-CoV case.

(A close contact is defined as a) any person who provided care for the patient, including a healthcare worker or family member, or had similarly close physical contact; or b) any person who stayed at the same place (e.g. lived with, visited) as the patient while the patient was ill.)

## Healthcare Provider Preparedness Checklist for MERS-CoV

*Front-line healthcare providers in the United States should be prepared to evaluate patients for new and emerging infectious diseases such as Middle East Respiratory Syndrome Coronavirus (MERS-CoV). The following checklist highlights key steps for healthcare providers to take in preparation for transport and arrival of patients potentially infected with MERS-CoV.*

- ☐ Stay up to date on the latest information about signs and symptoms, diagnostic testing, and case definitions for MERS-CoV disease (<http://www.cdc.gov/coronavirus/mers/case-def.html>)
- ☐ Review your infection control policies and CDC infection control recommendations for MERS-CoV <http://www.cdc.gov/coronavirus/mers/infection-prevention-control.html> for:
  - ☐ Assessment and triage of acute respiratory infection patients
  - ☐ Patient placement
  - ☐ Visitor management and exclusion
  - ☐ Personal protective equipment (PPE) for healthcare personnel
  - ☐ Source control measures for patients (e.g., put facemask on suspect patients)
  - ☐ Requirements for performing aerosol generating procedures
- ☐ Be alert for patients who meet the MERS-CoV case definition (<http://www.cdc.gov/coronavirus/mers/case-def.html>)
- ☐ Promptly implement source control for potential MERS-CoV patients before transport or upon entry to the facility and triage according to facility plans (e.g., place in private room) for evaluation
- ☐ Know how to report a potential MERS-CoV case or exposure to facility infection control leads and public health officials
- ☐ Know who, when, and how to notify and when to seek evaluation by occupational health following an unprotected exposure (i.e., not wearing recommended PPE) to a suspected or confirmed MERS-CoV patient
- ☐ Know how to contact and receive information from your state or local public health agency
- ☐ Remain at home if you are ill

For more information, visit <http://www.cdc.gov/coronavirus/mers/preparedness/checklist-provider-preparedness.html>.

## Healthcare Facility Preparedness Checklist for MERS-CoV

*All U.S. healthcare facilities need to be prepared for new and emerging infectious disease threats such as Middle East Respiratory Syndrome Coronavirus (MERS-CoV). All hospitals should be equipped and ready to care for a limited number of infected patients as part of routine operations and also to potentially care for a larger number of patients in the context of escalating transmission. Facilities should outline plans for administrative, environmental, and communication measures and define the individual work practices that will be required to detect the introduction of MERS-CoV or other emerging infectious diseases, prevent spread, and manage the impact on patients, the facility, and staff.*

*The following checklist highlights some key areas for healthcare facilities to review in preparation for MERS-CoV. The checklist format is not intended to set forth mandatory requirements or establish national standards.*

- ☐ Ensure facility infection control policies are consistent with the Centers for Disease Control and Prevention's MERS-CoV guidance (<http://www.cdc.gov/coronavirus/mers/infection-prevention-control.html>)
- ☐ Review procedures for rapidly implementing appropriate isolation and infection practices for potential MERS-CoV patients
- ☐ Review policies and procedures for screening and work restrictions for exposed or ill HCP including ensuring that HCP have ready access, including via telephone, to medical consultation
- ☐ Review procedures for laboratory submission of specimens for MERS-CoV testing
- ☐ Review plans for implementation of surge capacity procedures and crisis standards of care
- ☐ Develop plans for visitor restriction if MERS-CoV is circulating in the community
- ☐ Ensure that specific persons have been designated within the facility who are responsible for communication with public health officials and dissemination of information to other HCP at the facility
- ☐ Confirm the local or state health department contact for reporting MERS-CoV cases and confirm reporting requirements
- ☐ Assure ability to implement triage activities based on public health guidance including at the facility and using remote (i.e., phone, internet-based) methods where appropriate to minimize demand on the health care system
- ☐ Ensure that negative-pressure airborne infection isolation rooms are functioning correctly and are appropriately monitored for airflow and exhaust handling
- ☐ Ensure that HCP who will provide patient-care have been medically cleared, fit-tested, and trained for respirator use
- ☐ Provide education and refresher training in the next six weeks to HCP regarding MERS-CoV diagnosis, how to obtain specimen testing, appropriate PPE use, triage procedures including

patient placement, HCP sick leave policies, and how and to whom MERS-CoV cases should be reported, procedures to take following unprotected exposures (i.e., not wearing recommended PPE) to suspected MERS-CoV patients at the facility

- ☐ Assess availability of personal protective equipment (PPE) and other infection control supplies (e.g., hand hygiene supplies) that would be used for both healthcare personnel (HCP) protection and source control for infected patients (e.g., facemask on the patient)
- ☐ Have contingency plans if the demand for PPE or other supplies exceeds supply
- ☐ Assess effectiveness of environmental cleaning procedures; provide education/refresher training for cleaning staff (<http://www.cdc.gov/HAI/toolkits/Evaluating-Environmental-Cleaning.html>)
- ☐ Monitor the situation at CDC's MERS website:  
<http://www.cdc.gov/coronavirus/mers/index.html>

For more information, visit <http://www.cdc.gov/coronavirus/mers/preparedness/checklist-facility-preparedness.html>.